

Work Order ID 114516

Friday, March 07, 2014 9:20:01 AM

114516

Page 1

Item ID: D3391-023

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2Start Date: 3/7/2014 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: *R.*Date: 14/03-7

Tooling:

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N):

Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3391	I

100

100

Skidtubes

Skidtubes

Skidtubes

Memo

0.00

0.00

1-Cut tube to finish length as per Dwg D3391

2-Drill pilot holes using DT8796 (Do not drill "B" holes) and drill only 1 fwd saddle hole on one side only as per Dwg D3391

3-Open saddles and GHW holes to Ø0.375" except for fwd saddle hole of detail "J"

4-Remove .030" from Fwd indexing Ridge as per Dwg D3391

5-Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391

6-Deburr

7-Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.250" holes with paint marker,

***DO NOT DRILL HOLES #3-19-20 FROM FWD END OF JIG

8-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.250" (10 holes) as per Dwg D3391

9-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.297" (20 holes) as per Dwg D3391

DO NOT OPEN 2 MOST FWD WEARPLATE HOLES

DC 18/03/19

DQA: _____ Date: _____

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

FAULT CATEGORY

Landing Gear	General			
Bending	Bend	Folio/Program	Outside Dimensions	Pressure/Forced
Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance	Set-up
Cracks	Broken/Damage/Defect	Hardware	Part Incorrect	Temperature/Cure
Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified	Part Lost/Missing	Weld
Cuffs	Contamination	Instructions Incomplete/Unclear	Part Moved	Wrong Stock Pulled
Crushing	Countersink	Misaligned/off center	Positioned Wrong	
Heat Treat	Cut Too Short	Mislabeled	Power Loss/Surge	
Inspection Strip in Tube	Drawing	Misread		Other
Marks/Chatter	Drill Holes	Off-set		
Turning Sequence	Finish	Out of Calibration		
Wave/Twist in Tube	Fit/Function	Out of Sequence		

Work Order ID 114516

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Page 2

Item ID: D3391-023

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

10-Open .375" holes to .438" ***do not open fwd saddle holes***

11-Locate D3391-021 in D3391-023 at 9.00" (see view z-z)

12- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149 locating from previously drill .188 dia hole, using t-pins and clicos to ensure perfect aligment, open up previously transfer drilled pilot holes in D3391-023/-021 to 0.438" dia. in D3391-021
D3391-021 BATCH: 114510

13- Using DT8217, locating from two previously drilled holes, drill remaining wearplate holes into D3391-021.

14- Locating from two fwd wearplate holes in D3391-023 drill remaining 6 wearplte holes in D3391-021 using DT8937

15- Open 10 wearplate holes in D3391-021 to 0.297" dia.

16- insert D3391-021 into D3391-23

17- insert T-pins into first and third fwd saddle holes

18- ON FIRST SIDE ONLY drill out 2nd and forth fwd saddles holes to 0.500" as per

19- ON 2ND SIDE ONLY ream out 2nd and forth saddle hole to 0.499".

20-Deburr and blow out all chips from inside tube, scribe batch # in D3391-023 at aft end.

DP 14-3-25

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Crosstube <input type="checkbox"/> Machining <input type="checkbox"/> Small Fab <input type="checkbox"/> Thermoforming <input type="checkbox"/> Finishing <input type="checkbox"/> Large Fab <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <hr/> <hr/> <hr/>	<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Page 3

Item ID: D3391-023

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N900040100

Setup Start

NS1

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Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____	Run	Start	*NR1*
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110 *110* QC	QC5- Inspect part completeness to step on W/O Quality Control	0.00				①	14-03-26		DAS 9.89
120 *120* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00				14-3-26	JCL	/	
130 *130* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00				DC	14/03/26		

DQA:

Date: _____

QA Closed:

Date: _____

WORK ORDER NON-CONFORMANCE / UPDATEWork Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>		
NCR No. _____							

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General			
Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced Set-up <input type="checkbox"/>
Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>
Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	
Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>	
Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	
Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>	Other <input type="checkbox"/>	
Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set. <input type="checkbox"/>		
Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>		
Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>		

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Page 4

Item ID: D3391-023

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

**Sequence ID/
Work Center ID**

140

140

Skidtubes

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

0.00

DC 14/03/26

Skidtubes

Memo

0.00

- 1-Open float bag holes as per dwg
- 2-C'sink float bag holes as per dwg
- 3- Prepare tube for welding
- 4-Bond web in place as per Dwg D3391 & QSI 015.
- Adhere for 12 hours)
- A/R Sikaflex exp: *14/10/09*
- batch#: *128026*

NOTE: ENSURE WEB IS INSERTED IN AFT END OF TUBE

150

150

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

DAS
18
9-69

14/03/27

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____	Suspected Unapproved <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
				Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
						Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General									
<input type="checkbox"/>	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Folio/Program	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>	Pressure/Forced		
<input type="checkbox"/>	Centre Not Concentric	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Set-up		
<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Broken/Damage/Defect	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Temperature/Cure		
<input type="checkbox"/>	Crimp/Kink/Ripple/Wave	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Inspection Incomplete/Unqualified	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Weld		
<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>	Wrong Stock Pulled		
<input type="checkbox"/>	Crushing	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Misaligned/off center	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>			
<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other		
<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Misread	<input type="checkbox"/>					
<input type="checkbox"/>	Marks/Chatter	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Off-set	<input type="checkbox"/>					
<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>					
<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Fit/Function	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>					

Work Order ID 114516

Friday, March 07, 2014 9:20:01 AM

114516

Page 5

Item ID: D3391-023

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

160

160

Skidtubes

Skidtubes

0.00

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

160

Skidtubes

Skidtubes

0.00

A/R M 127763

Skidtubes

Memo
1-Weld crossbolt spacer as per dwg D3391 & QSI 004
2-grind weld flush

7/8/14-03-27

PJO

170

170

QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

170

QC

Quality Control

Memo

0.00

Shp
14/3/31

180

180

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

180

QC

Quality Control

Memo

0.00

Shp
14/3/31

DQA:

dhfzDate: 14/04/25

QA Closed:

XDate: 14/4/16

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only

Work Order:	DISPOSITION				AGAINST DEPARTMENT/PROCESS													
	Rework <input checked="" type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Suspected Unapproved <input type="checkbox"/>	Skid-tube <input checked="" type="checkbox"/>	Machining <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/>	Quality <input type="checkbox"/>
Part No.	<u>03391-623</u>																	
NCR No.	<u>14-3758</u>																	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data	<u>14/3/28</u>	<u>160</u>	<u>1</u>	Piece of tungsten weld imbedded in tube. Removal caused 0.040 deep gash.	<u>DAS</u> <u>12</u> <u>9-69</u>	Fill with weld. On neutral axis, area of low stress.	<u>BF</u> <u>14-03-31</u>		
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process	<u>X</u>			<u>QC Process/</u>					
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Folio/Program	Outside Dimensions	Pressure/Forced
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Set-up
<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Lost/Missing	<input checked="" type="checkbox"/> Weld
<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Moved	<input type="checkbox"/> Wrong Stock Pulled
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Positioned Wrong	
<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Power Loss/Surge	
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled		
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread		
<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set		
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration		
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence		

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Page 6

Item ID: D3391-023

Accept

N900040100

Setup Start

NS1

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Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

185

Pressure Wash per QSI005 4.3

185

HandFinish

Hand Finishing

**Set Up/
Run Hours**

0.00

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

xx d ll 1037

190

White Gloss(Ref 4.3.5.1) per QSI005 4.3-Alum

0.00

190

Powdercoat

Powder Coating

Memo

108007

0.00

Ld 14-4-1 0459

200

QC3- Inspect Part Finish

0.00

200

QC

Quality Control

Memo

145

0.00

xx d ll 1459

DQA: _____

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. _____	Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
NCR No. _____									

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Folio/Program	Outside Dimensions
Bending	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>
Centre Not Concentric	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Set-up <input type="checkbox"/>
Cracks	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Weld <input type="checkbox"/>
Cuffs	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
Crushing	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	
Heat Treat	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>	
Marks/Chatter	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>	
Turning Sequence	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	

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Item ID: D3391-023

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals: **Process Plan:** _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

**Sequence ID/
Work Center ID**
230

230

HandFinish

Hand Finishing

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

0.00

Lx f Hl 140402

HandFinishing

Memo

0.00

1- press fit D3591-1 spacers using DT9416 starting from 0.500" side

✓ 2-Install Inserts as per Dwg

240

240

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

*DAS
27
4-65
141412*

0.00

250

250

Packaging

Packaging

Identify as per dwg & Stock Location:W10

0.00

D412-742-043 / B110021

0.00

Lx f Hl 140402

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. _____	Rework Scrap Use-as-is Suspected Unapproved	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other				
NCR No. _____									

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General							
	<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program		<input type="checkbox"/> Outside Dimensions		<input type="checkbox"/> Pressure/Forced	
	<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain		<input type="checkbox"/> Over/Under tolerance		<input type="checkbox"/> Set-up	
	<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware		<input type="checkbox"/> Part Incorrect		<input type="checkbox"/> Temperature/Cure	
	<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified		<input type="checkbox"/> Part Lost/Missing		<input type="checkbox"/> Weld	
	<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear		<input type="checkbox"/> Part Moved		<input type="checkbox"/> Wrong Stock Pulled	
	<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center		<input type="checkbox"/> Positioned Wrong			
	<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled		<input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Other	
	<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread					
	<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set					
	<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration					
	<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence					

Work Order ID 114516

Friday, March 07, 2014 9:20:01 AM

114516

Page 8

Item ID: D3391-023

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

260

QC21- Final Inspection - Work Order Release

0.00

260

QC

Quality Control

Memo

0.00

14/4/30 JJ

RL 14-04-2

DQA: _____ Date: _____

Date: _____



WORK ORDER NON-COMPLIANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Picklist Print

Page 1

Friday, March 07, 2014 9:20:06 AM

Work Order ID: 114516

114516
D3391-023

Parent Item: D3391-023

Parent Item Name: Mid Tube Assembly

Start Date: 3/7/2014

Required Date: 3/14/2014

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP A05.10.20New Issue KJ/EC
 IPP B06.02.10ECN773 dwg rev.D EC
 IPP C 07.03.20 rev F dwg EC
 IPP D 07.03.28 re-format EC
 IPP E 07.10.31 ecn 1053P EC
 IPP Rev:F ECN 1056 07-11-13 DD verified by: EC
 IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC
 IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC
 IPP Rev: I 08-11-13 Removed steps per w/o, QC KJ verified by: ec IPP
 Rev:J add in seq 140 expire date &# sikaflex DD 10.02.17 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2500-1-100		Manufactured	No			100	Each	85.0000	1	1	DC 14/03/19		
D2500-1-100													

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
HALL	85	
	24	
	61	
82373		
86065		

D3389-1		Manufactured	No			140	Each	9.0000	1	1	DC 14/03/26		
D3389-1													

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	9	
	9	
113057		

D3681-1		Manufactured	No			160	Each	176.0000	5	5	BE 14/03/27		
D3681-1													

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG001	176	
	40	
108647		
109109	136	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>		Engineering <input type="checkbox"/>		
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>		Quality <input type="checkbox"/>		
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>		Other <input type="checkbox"/>		
				Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Centre Not Concentric <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Pressure/Forced Set-up <input type="checkbox"/>				
Cracks	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Contamination <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>	Set-up <input type="checkbox"/>				
Crimp/Kink/Ripple/Wave	Broken/Damage/Defect <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Burrs <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Weld <input type="checkbox"/>	Crushing <input type="checkbox"/>				
Cuffs	Countersink <input type="checkbox"/>	Misaligned/Off-center <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>	Heat Treat <input type="checkbox"/>				
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>	Other <input type="checkbox"/>	Marks/Chatter <input type="checkbox"/>				
Turning Sequence	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>		Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>		Wave/Twist in Tube <input type="checkbox"/>				

Picklist Print

Page 2

Friday, March 07, 2014 9:20:06 AM

Work Order ID: 114516

114516

Parent Item: D3391-023

D3391-023

Parent Item Name: Mid Tube Assembly

Start Date: 3/7/2014

Required Date: 3/14/2014

Start Qty: 1.00

Required Qty: 1.00

D3591-1

Manufactured

No

Each

90.0000

2

**

LL 140402

D3591-1

Bushing

Location	Loc Qty	Loc Code
FG	10	
92873	10	
FP001	80	
100699	5	
107918	38	XZ
109107	37	

ALS4-1032-130

AELS4-1032-130

Purchased

No

230

Each

1,136.000

20

20

**

LL 140402

AL S4-1032-130

Rivnut

ALS4-1032-130

Location	Loc Qty	Loc Code
ST279	1079	
M128179	122	
M128211	957	
st510	57	M128649
M126109	57	XZ0

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

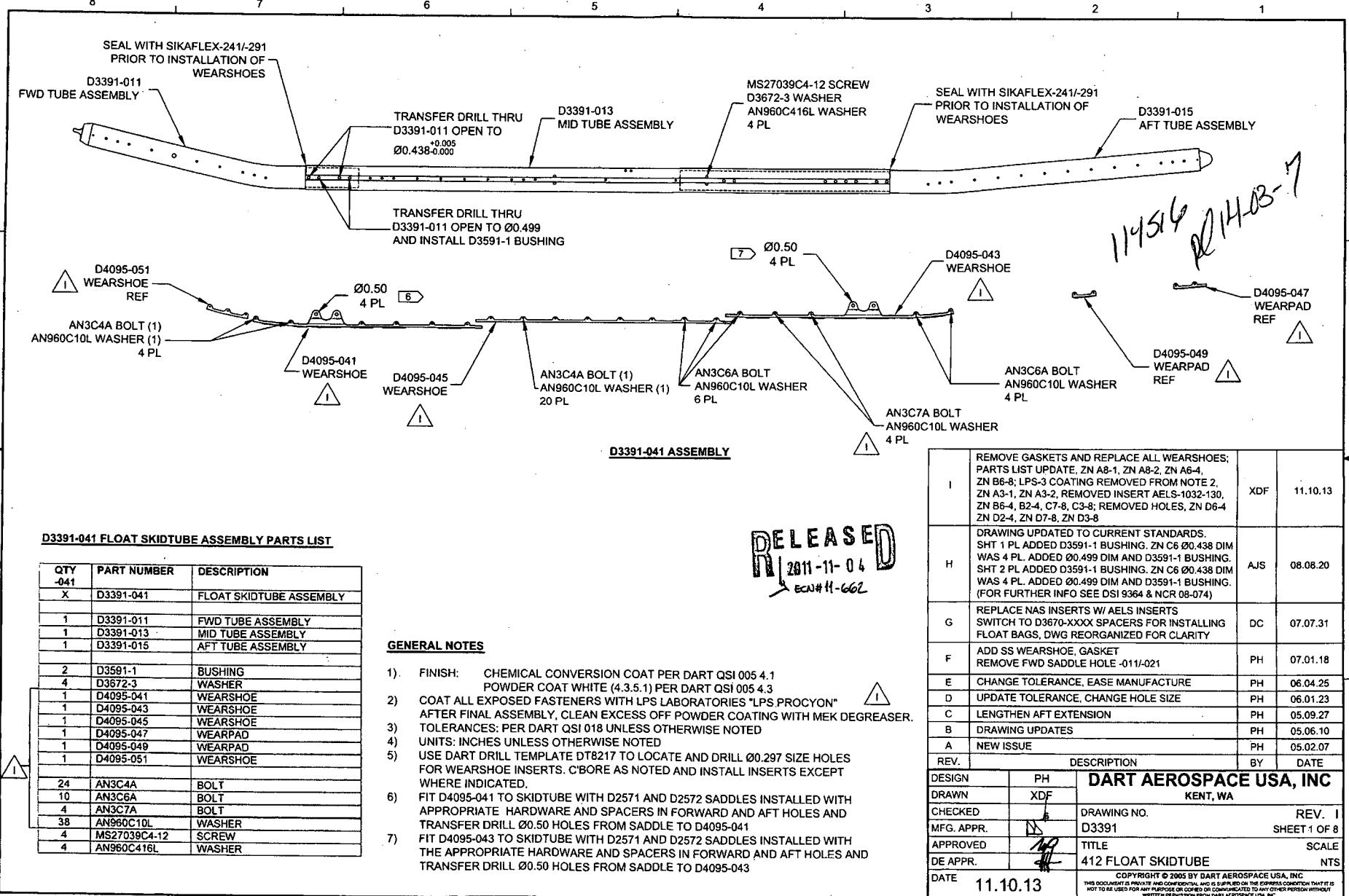
Work Order update only

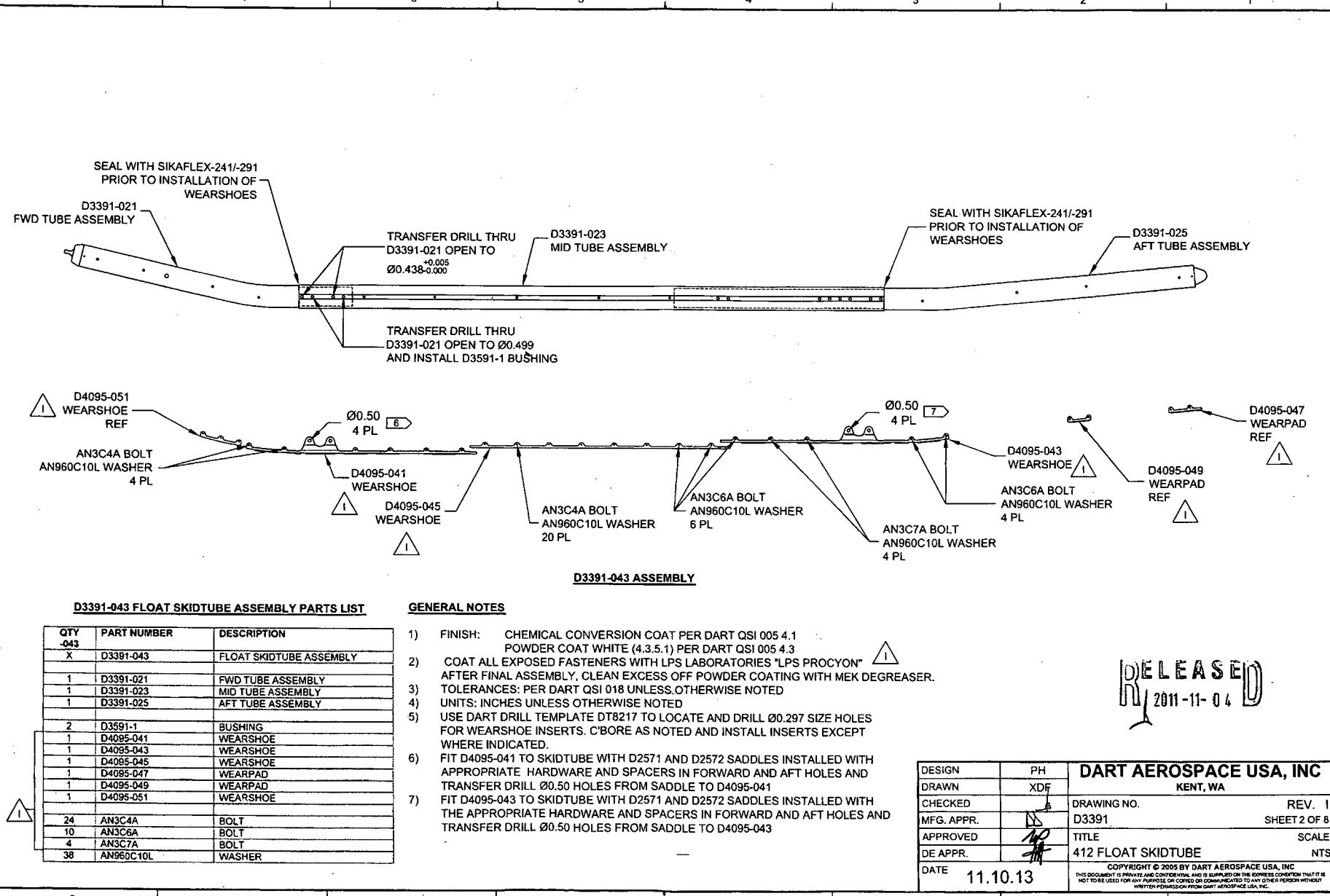
<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>	DISPOSITION Rework Scrap Use-as-is Suspected Unapproved	AGAINST DEPARTMENT/PROCESS Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other
---	--	---	--	--	---------------------------------

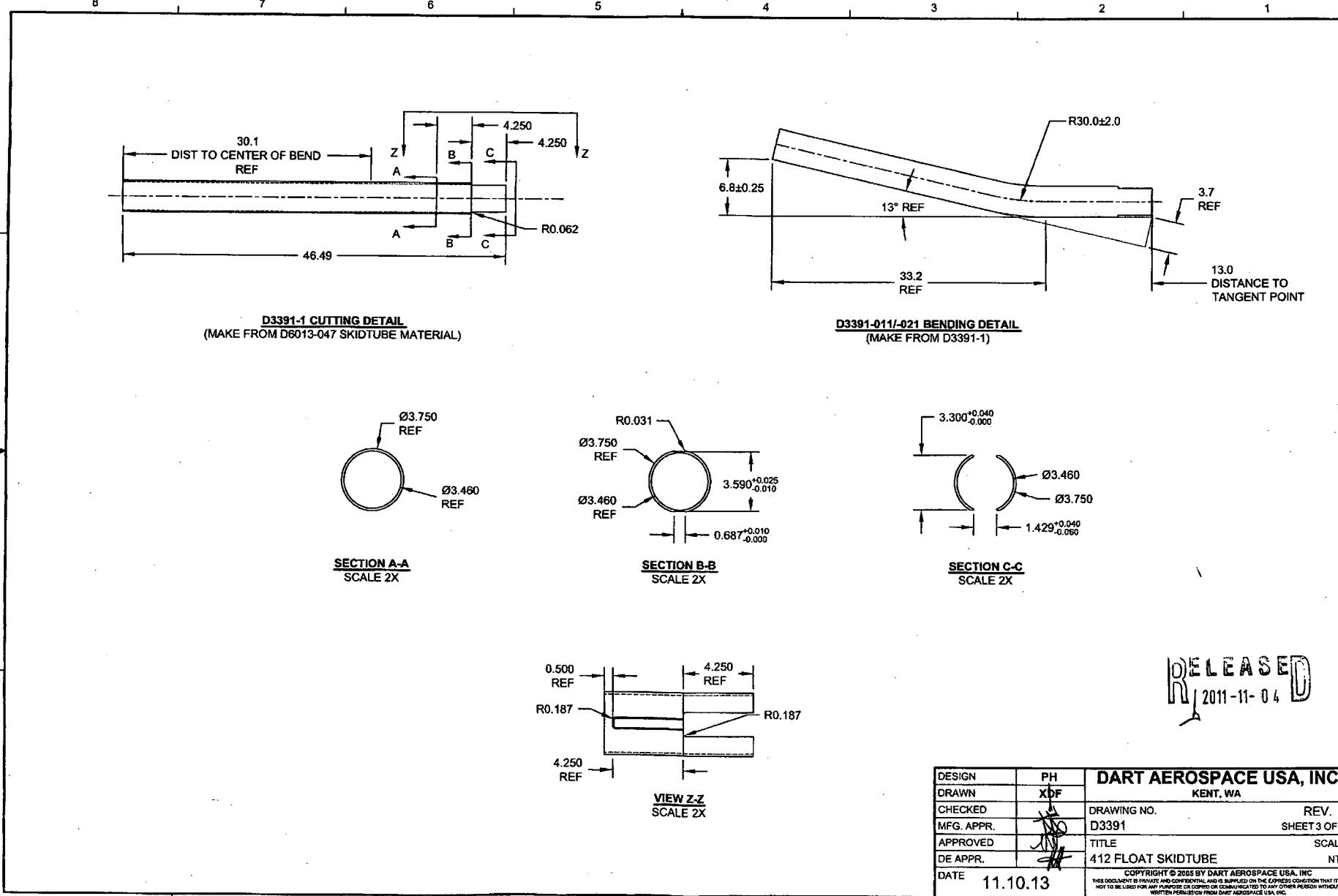
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

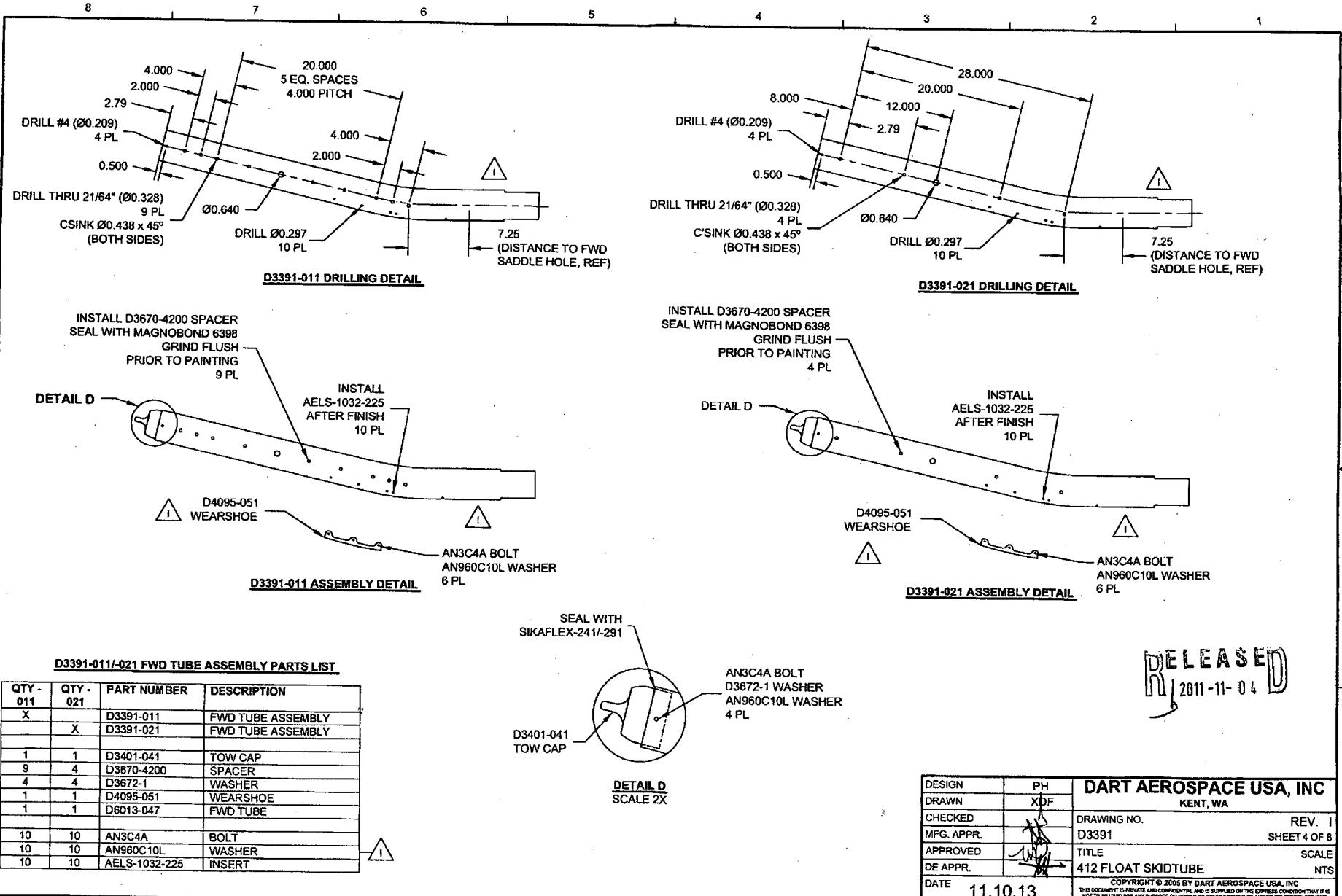
FAULT CATEGORY

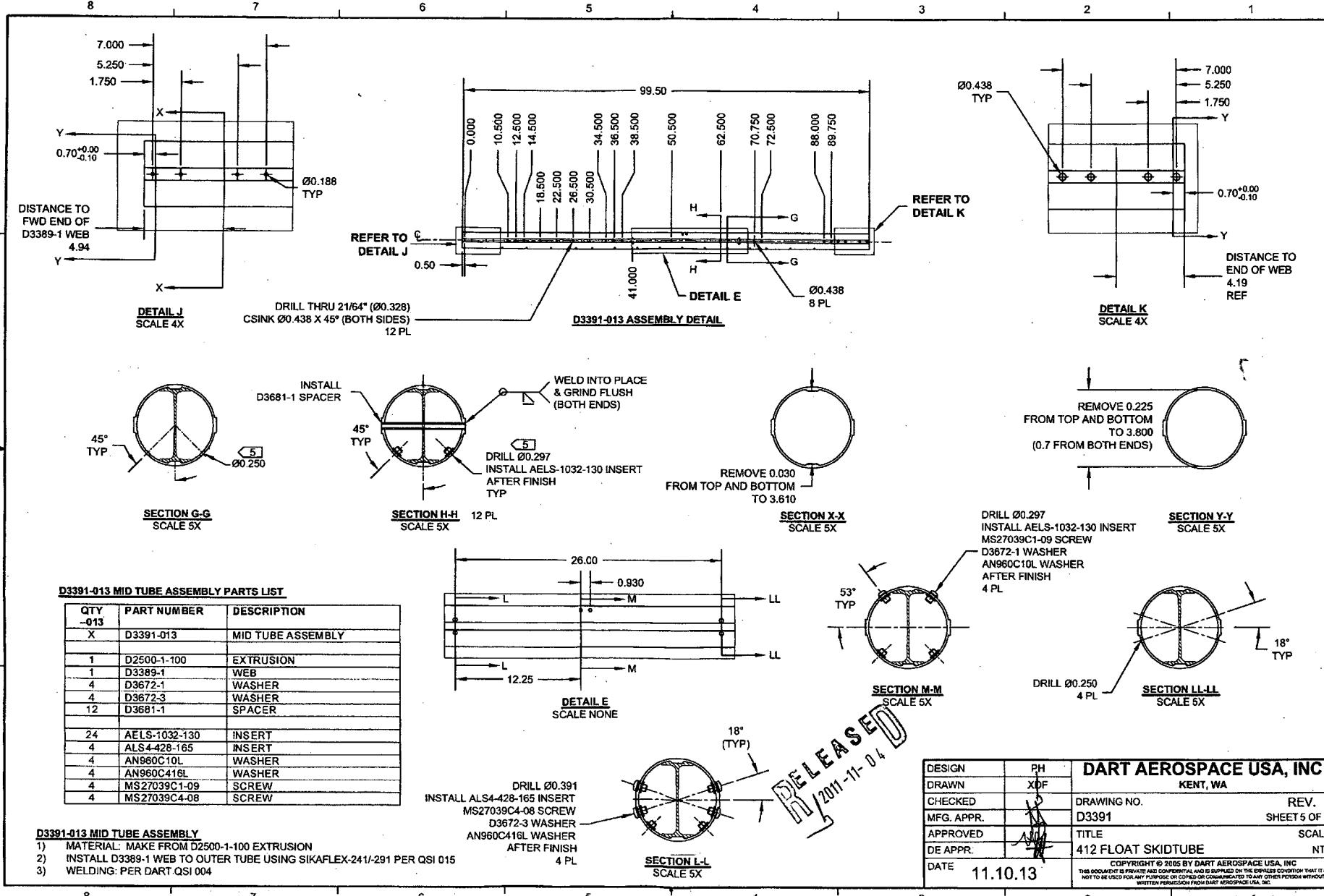
Landing Gear	General	Folio/Program	Outside Dimensions
Bending	Bend	Grain	Pressure/Forced
Centre Not Concentric	BOM/Route	Hardware	Set-up
Cracks	Broken/Damage/Defect	Inspection Incomplete/Unqualified	Temperature/Cure
Crimp/Kink/Ripple/Wave	Burrs	Instructions Incomplete/Unclear	Weld
Cuffs	Contamination	Misaligned/off center	Wrong Stock Pulled
Crushing	Countersink	Mislabeled	
Heat Treat	Cut Too Short	Misread	
Inspection Strip in Tube	Drawing	Off-set	
Marks/Chatter	Drill Holes	Out of Calibration	
Turning Sequence	Finish	Out of Sequence	
Wave/Twist in Tube	Fit/Function		

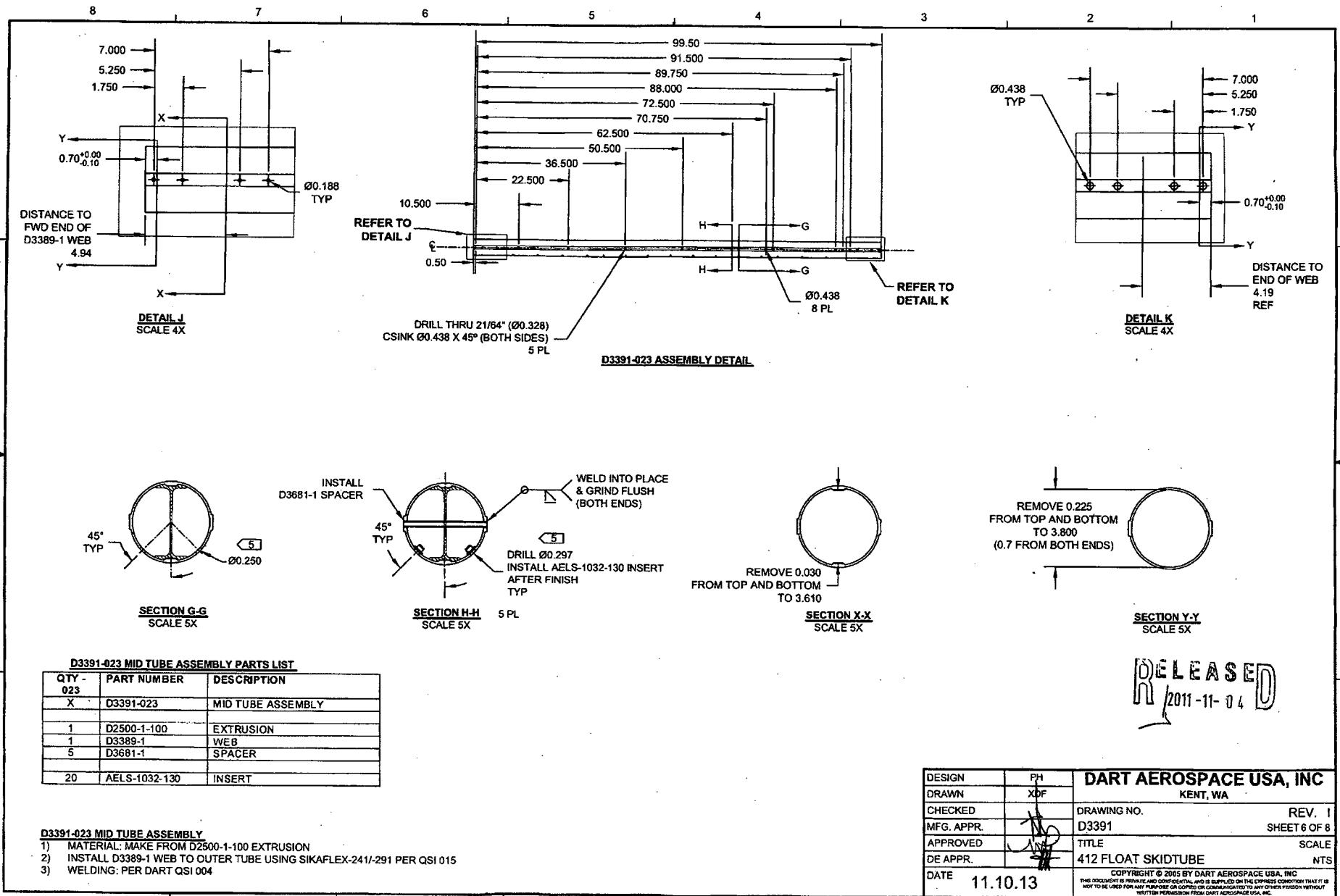


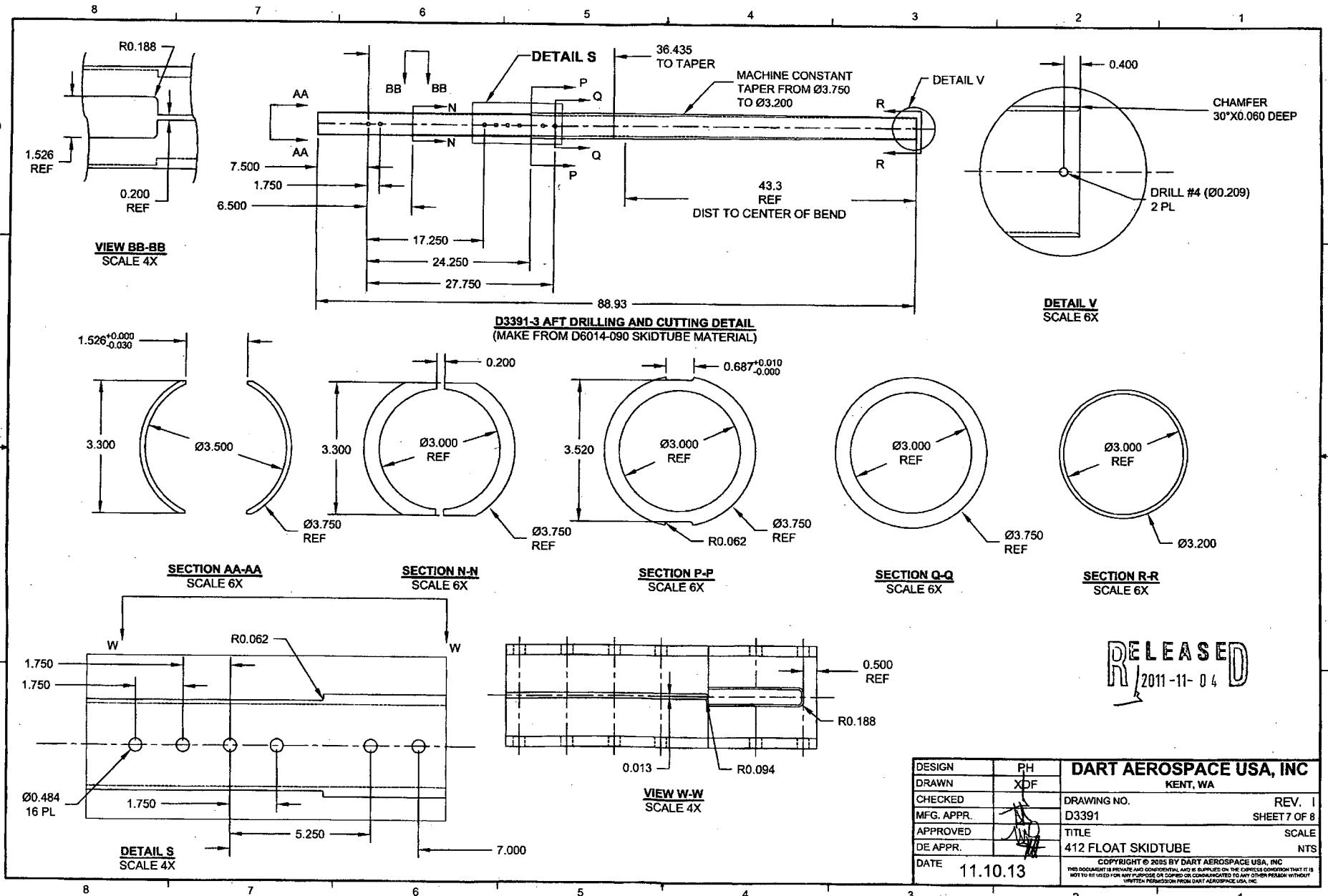


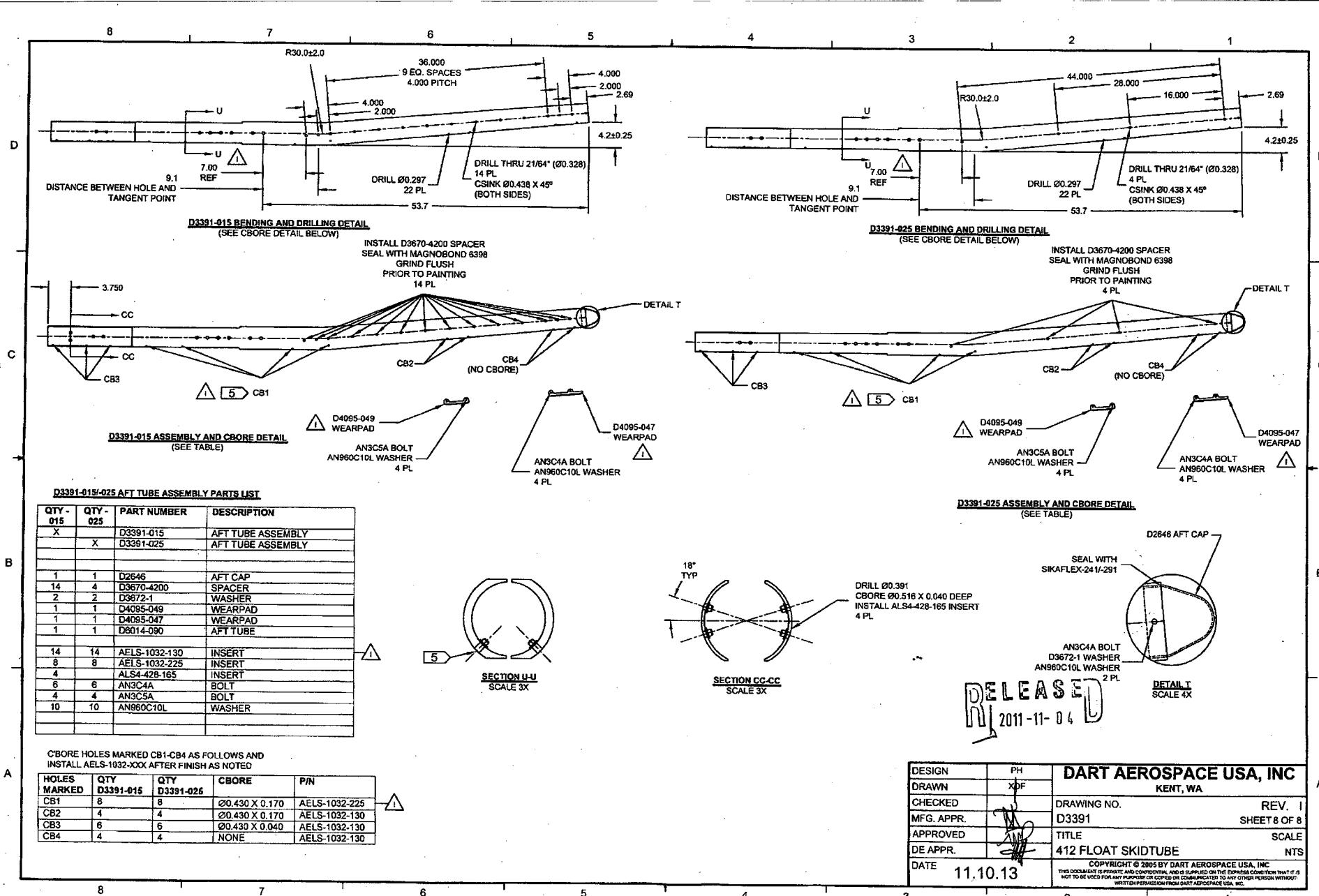








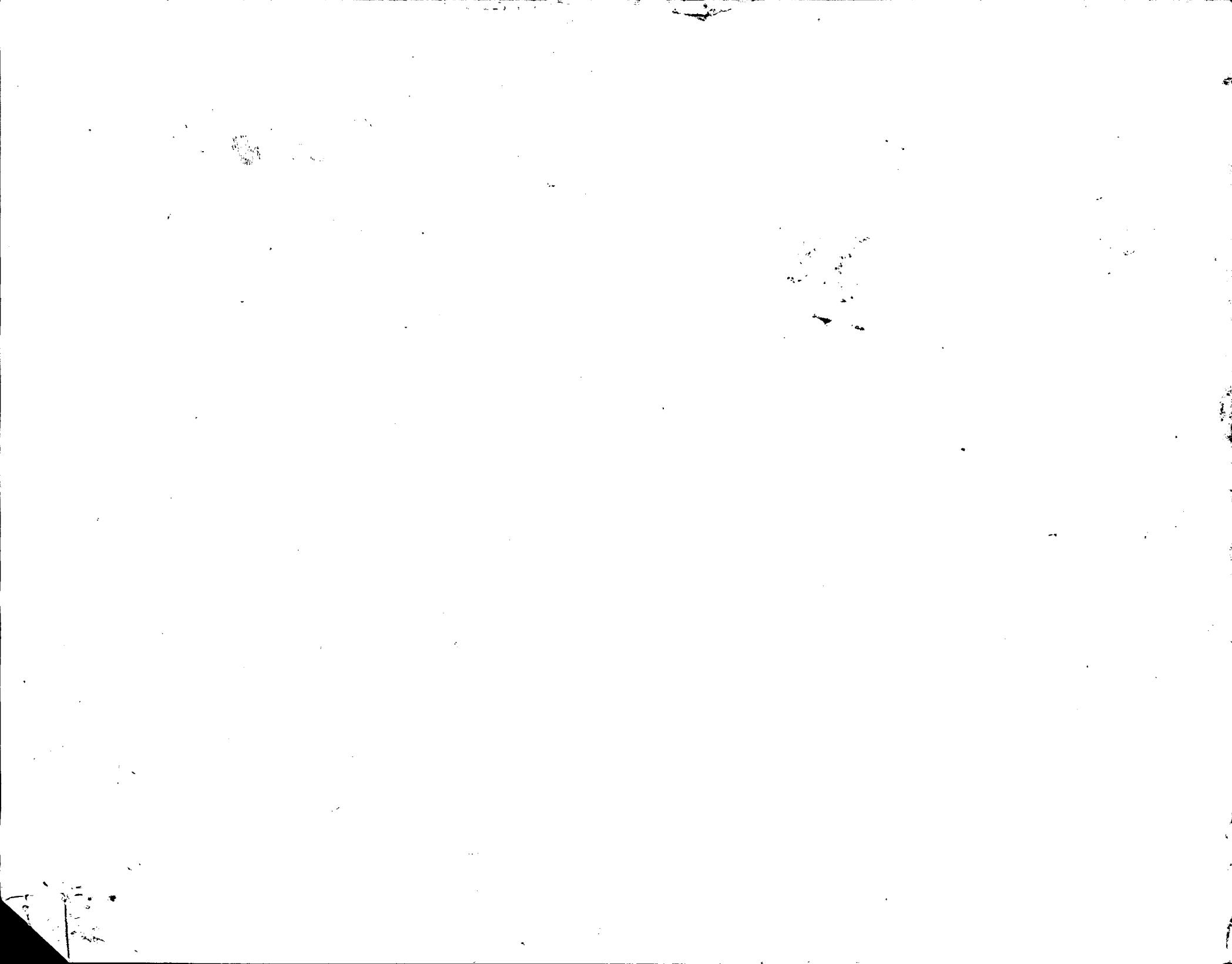




RELEASED
2011-11-04

2011-11-04

DESIGN	PH	DART AEROSPACE USA, INC		
DRAWN	XDF	KENT, WA		
CHECKED		DRAWING NO.	REV. 1	
MFG. APPR.	<i>[Signature]</i>	D3391	SHEET 8 OF 8	
APPROVED	<i>[Signature]</i>	TITLE	SCALE	
DE APPR.	<i>[Signature]</i>	412 FLOAT SKIDTUBE	INTS	
DATE	11.10.13	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN CONSENT OF DART AEROSPACE USA, INC.		



NO. 334

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job #: 108635
Part #: A3391-023
Description: Skidplate
Welding Process: Tig[✓] Mig[]
Base material: Steel
Current: AC[✓] DC[]

TEST REQUIREMENTS AND RESULTS

Visual:	pass[<u>✓</u>]	fail[<u> </u>]
Incomplete Penetration:	pass[<u>✓</u>]	fail[<u> </u>]
Incomplete Fusion:	pass[<u>✓</u>]	fail[<u> </u>]
Cracks:	pass[<u>✓</u>]	fail[<u> </u>]
Overlap (cold lap)	pass[<u>✓</u>]	fail[<u> </u>]
Undercut:	pass[<u>✓</u>]	fail[<u> </u>]
Pin holes:	pass[<u>✓</u>]	fail[<u> </u>]
Porosity (surface):	pass[<u>✓</u>]	fail[<u> </u>]
Coloration:	pass[<u>✓</u>]	fail[<u> </u>]
Burn through:	pass[<u>✓</u>]	fail[<u> </u>]

Qualifier Barclay Elliot Date of Test Coupon 13-10-25

Welder Barclay Elliot Date of Test Coupon 13-10-25

The above named individual is qualified in accordance with AWS D17.1.2001 to weld